This draft reflects the submissions of five Agency workgroups, each of which addressed a specific strategic goal. With the aid of comments received on this draft, the Agency will continue its work to specify targets where placeholders now exist, to establish a consistent format across the goals, and to further consider the content and usefulness of supporting outcomes and measures as part of the strategic architecture itself.

DRAFT 2003 STRATEGIC ARCHITECTURE
December 31, 2002

Goal 1: Clean Air.

American communities and surrounding ecosystems will be safe from harmful levels of air pollution and radiation.

Objective 1: Outdoor Air. By 2010, ___% of the population will be protected from unhealthy levels of the criteria pollutants compared to ___% in 200___, and ___% of the population will be protected from unhealthy levels of air toxics, as compared to ___% in 200___.

Sub-Objective 1.1: Federal Regulation of Electric Generating Units and other Stationary Sources. By 2010, nationwide federal market-based and regulatory programs will reduce electric generating unit and other stationary source emissions of sulfur dioxide (SO_2) by ___ tons from their 2000 levels of _____, NO_x by ___ tons from their 2000 levels of _____, and air toxics by ___ tons from their 2000 levels of _____.

Strategic Targets:

Based on full implementation of Title IV Acid Rain Program, OTC NO_x Budget Program, and NO_x SIP Call (Phase I States/sources)

- By 2010, SO_2 emissions from electric generating units will be reduced by ___ tons from their 2000 levels of _____ and SO_2 emissions from other stationary sources will be reduced by ___ tons from their 200X levels of _____.
- By 2010, NO_x emissions from electric generating units will be reduced by ___ tons from their 2000 levels of _____ and NO_x emissions from other stationary sources will be reduced by ___ tons from their 200X levels of _____.
- By 2010, mercury emissions from electric generating units will be reduced by ___ tons from their 2000 levels of _____.
- By 2010, air toxics emissions from other stationary sources will be reduced by ___ tons from their 2000 levels of _____.

Sub-Objective 1.2: Federal Regulation of Mobile Sources and their Fuels. By 2010, nationwide federal regulations will reduce emissions of NO_x, volatile organic compounds (VOCs), and PM from mobile sources and fuels by 10.4 million tons from their 2000 levels of 97.1 million tons, and air toxics by 1.1 million tons from their 1996 levels of 2.7 million tons.

Strategic Targets:

- By 2010, emissions of NO_x from mobile sources and fuels will be reduced by

3.7 million tons from their 2000 levels of 13.4 million tons.

- By 2010, emissions of VOCs from mobile sources and fuels will be reduced by 2.4 million tons from their 2000 levels of 7.3 million tons.
- By 2010, emissions of PM from mobile sources and fuels will be reduced by 120,000 tons from their 2000 levels of 705,600 tons.
- By 2010, emissions of carbon monoxide (CO) from mobile sources and fuels will be reduced by 4.1 million tons from their 2000 levels of 75.6 million tons.
- By 2010, emissions of air toxics from mobile sources and fuels will be reduced by 1.1 million tons tons from their 1996 levels of 2.7 million tons.

Sub-Objective 1.3: Area-specific Air Quality Management. By 2010, air quality for ozone (8-hour) and fine particles will improve to healthy levels for __% of the ____ million people that had poor air quality in 200X, and healthy air for the other pollutants will be maintained for the ___ million people that had healthy air in 200___. To accomplish this in Indian country, EPA will by 200X have developed an integrated strategy for shared tribal and federal implementation of appropriate Clean Air Act programs.

Strategic Targets:

- Ozone: By 2010, air quality for ozone (8-hour) will improve to healthy levels for ____ % of the people who were living in areas determined to have poor air quality for ozone in 200X.
- Fine Particles: By 2010, air quality for fine particles will improve to healthy levels for ___ % of the people who were living in areas determined to have poor air quality for fine particles in 200X.
- Other NAAQS: Through 2010, all areas of the country will preserve and maintain healthy air quality for CO, nitrogen dioxide (NO_2), SO_2, and lead.
- Integrated Strategy for Tribal Programs: TBD

Sub-Objective 1.4: Area-specific Air Toxics. Through 2010, area-specific programs will reduce the risk of cancer, other significant health problems, and adverse environmental effects from air toxics in localities including Indian country that are not addressed by nationwide federal stationary and mobile source air toxics programs. By 2010 (or earlier), the tribes and EPA will have the information and tools to characterize and assess trends for ___% of Indian tribes.

Strategic Targets:

- ____ area-specific air toxics projects are planned.
- NATA update
- Information and Tool Development Specific to Indian Country: TBD

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Objective 2: Indoor Air. By 2010, 22.5 million more Americans than in 1994 will be experiencing healthier indoor air in homes, schools, and office buildings, compared to the 16 million more people expected to be experiencing healthier air by 2005.

Strategic Targets:

- Homes: By 2010, approximately 2,900,000 people will be living in homes with radon-resistant features along with children not being exposed to ETS.
- Schools: By 2010, approximately 2,600,00 students and staff will experience improved air quality in their schools.
- Workplaces: By 2010, approximately 1,200,000 office workers will experience improved air quality in their workplaces.

Objective 3: Atmospheric Change. Through 2010, protect humans, global environments, and natural ecosystems from the harmful effects of ozone depletion and climate change.

Sub-Objective 3.1: Climate Change. By 2010, U.S. greenhouse gas emissions will be reduced by about 180 million metric tons of carbon equivalent (MMTCE) compared to business-as-usual.

Strategic Targets:

- TBD

Sub-Objective 3.2: Stratospheric Ozone. By 2010, ozone concentrations in the stratosphere will have stopped declining and slowly begun the process of recovery, and the risk to human health from overexposure to ultraviolet (UV) radiation, particularly among susceptible subpopulations such as children, will be reduced.

[Every 4 years the 'Scientific Assessment Panel,' convened by the Montreal Protocol Parties, measures the ozone concentrations in the atmosphere. To view the reports produced by and information about the Scientific Assessment Panel visit: www.teap.org & www.unep.org/ozone.]

Strategic Targets:

- TBD

Objective 4: Radiation. Through 2010, EPA and its partners and stakeholders will minimize unnecessary releases of radiation and be prepared to minimize impacts to human health and the environment should unwanted releases occur.

Sub-Objective 4.1: Radiation Protection. Through 2010, minimize radioactive releases of EPA-regulated radioactive waste and minimize impacts from radiation exposure.

Sub-Objective 4.2: Emergency Response. By 2010, ensure Agency readiness to protect the public from airborne releases of radiation by performing enhanced training and exercises

and using state-of-the art equipment.

[Readiness will be measured by the extent to which EPA's Radiation Emergency Response Team (RERT) members meet scenario-based response criteria for ability to protect the public from airborne releases of radiation, and by the percentage of the population covered by the National Radiation Monitoring System.]

Objective 5: Science/Research. Through 2010, provide and apply a sound scientific foundation to EPA's goal of clean air by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 1**.**

Sub-Objective 5.1: Science to Support Air Programs. Through 2010, utilize the best available scientific information, models, methods and analysis to support air-program-related guidance and policy decisions.

Sub-Objective 5.2: Air Pollution Research. Through 2015, provide methods, models, data and assessment research associated with air pollutants. Criteria pollutant research will focus on emissions, fate and transport, exposures, mechanisms of injury, and health effects of criteria air pollutants, and is designed to support both the periodic revision of National Ambient Air Quality Standards, their implementation and related issues. Air Toxics research will develop and improve air quality models and source receptor tools; cost-effective pollution prevention and other control options; and scientific information and tools for quantitative assessment of nationwide, urban, and residual air toxic risks.

Strategic Targets:

- By 2007, transfer to environmental decision makers technical data and tools necessary to attain existing air quality standards by predicting, measuring, and reducing ambient concentrations of PM and PM components and emissions of PM and PM precursors.

- By 2009, transfer knowledge and data about exposure-response relationships and biological mechanisms of adverse health effects caused by short term exposure to PM, PM components, and co-pollutants to environmental decision makers to increase their ability to set standards that strengthen the protection of the general public and susceptible subpopulations.

- By 2012, provide environmental decision makers with the scientific understanding necessary to improve the effectiveness of existing and future PM air quality standards that link source-specific emissions, through atmospheric transformation and transport and personal exposure, to adverse health effects.

- By 2015, transfer knowledge and data about exposure-response relationships and biological mechanisms of adverse health effects caused by long term exposure to PM , PM components, and co-pollutants to environmental decision makers to increase their ability to set standards that strengthen the protection of the general public and susceptible subpopulations.

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- By 2008, support implementation and attainment of 8-hr ozone NAAQS by EPA and States and Tribes by providing evaluated state-of-science modeling, monitoring, & other tools and information and training EPA & states in their use.

- By 2010, provide Air Quality Criteria Documents, research needs documents, and consultation to the Program Office on the proposal and promulgation of the periodic review of the National Ambient Air Quality Standards for ozone, nitrogen oxides, and carbon monoxide.

- By 2008, produce new tools in the form of methods, models, or assessments, that enable national, regional, state, or local officials to identify or implement cost-effective approaches to reduce risks from stationary point, area, mobile, or indoor sources of air toxics.

- By 2010, provide data and models which allow Program and Regional Offices to reduce uncertainty of health effects and risks from acute, chronic, and multi-pathway exposures to air toxics at the national and regional levels, and conduct 3-5 community-level exposure and epidemiology studies to characterize the risk of air toxics at that scale.

- By 2013, provide regionally evaluated models and methods to attain 8-hr Ozone NAAQS focusing on remaining non-attainment areas and maintenance plans.

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Goal 2. Clean and Safe Water.

We will have safe drinking water. Oceans, watersheds, and their aquatic ecosystems will be restored and maintained to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.

Objective 1: Protect Human Health. Protect human health by reducing exposure to contaminants in drinking water, in fish and shellfish, and in recreational waters and attaining, by 2008, each of the specific human health targets identified in sub-objectives, and measured by strategic performance measures, described below.

Sub-Objective 1.1: Water Safe To Drink. By 2008, 95% of the population served by community water systems will receive drinking water that meets all applicable health-based drinking water standards. (2002 Baseline: __% of population served by systems complying with applicable standards for the latest reporting period [to be determined in January 03]; note that baseline is expected to change over time as new standards take effect.)

NOTE: EPA would like comment on how best to treat non-reporting systems in this sub-objective and in supporting Strategic Performance Measures below. Options include treating non-reporting systems as in compliance, treating non-reporting systems as not in compliance, or excluding non-reporting systems from the compliance calculation. In addition, EPA would like comment on a potential measure identifying the percentage of systems that fail to report and the most appropriate definitions of non-reporting (e.g. how to consider late reporting).

Strategic Targets:

- Increase Population Served Water Meeting 2001/Earlier Standards: By 2008, xx% of the population served by community water systems will receive drinking water that meets health-based standards with which systems need to comply as of December 2001. (2002 Baseline: __% of the population served by systems complying with applicable standards for the latest reporting period [to be determined in January 03]).

- Increase Water Systems Serving Water Meeting 2001/Earlier Standards: By 2008, xx% of the percentage of community water systems will provide drinking water that meets health-based standards with which systems need to comply as of December 2001. (2002 Baseline: __% of community water systems complying with applicable standards for the latest reporting period [to be determined in January 03]).

- Increase Population Served Water Meeting Standards Taking Effect in 2002 or Later: By 2008, xx% of the population served by community water systems will meet health-based standards with a compliance date of January 2002 or later. (2002 Baseline: __% of population served by systems complying with applicable standards for the latest reporting period [to be determined in January 03]; note that baseline is expected to change over time as new drinking water standards take effect.)

- Increase Water Systems Serving Water Meeting Standards Taking Effect in

2002 or Later: By 2008, xx% of community water systems will provide drinking water that meets health-based standards with a compliance date of January 2002 or later. (2002 Baseline: __% of community water systems complying with applicable standards for the latest reporting period [to be determined in January 03]; note that baseline is expected to change over time as new drinking water standards take effect).

- Increase Population in Indian Country Receiving Safe Water: By 2008, xx% of the population served by community water systems in Indian Country will receive drinking water that meets all applicable health-based drinking water standards. (2002 Baseline: __% of population served by systems complying with all applicable standards for the latest reporting period [to be determined in January 03]; note that baseline is expected to change over time as new drinking water standards take effect).

- Reduce Vulnerability of Source Waters to Contamination: By 2008, implement source water contamination prevention strategies in each State so that the percentage of source water areas (both surface and ground water) identified as highly or moderately vulnerable to contamination is reduced to xx%. (2002 Baseline: to be determined in 2004.)

- Improve Access to Safe Drinking Water: By 2008, the number of people in the United States with access to safe drinking water will be increased. (2002 Baseline: Estimate of people lacking access to safe drinking water will be developed in cooperation with State/Tribes/Other Federal Agencies.)

  NOTE: EPA is interested in hearing public comment on how best to define the baseline of persons lacking access to safe drinking water, including the best definition of "access," and potential data sources to support this measure.

- Reduce Waterborne Disease Attributable to Drinking Water:

  NOTE: EPA is not providing an outcome measure at this time. There are a number of disease occurrence indicators at the Federal, state and local level that may be relevant to quantifying microbial and chronic disease occurrence. These include CDC's nine State FOODNET telephone survey program, other incidental disease reporting to CDC by states and public health officials, the CDC annual report on waterborne disease outbreaks, hospital admissions records, epidemiological studies, and a range of reports from health care providers and pharmacies.

  The central question is how effective these indicators are in quantifying the waterborne disease component of total national disease occurrence for both acute microbial disease as well as for long-term chronic incidence. A further question to explore is the reliability of existing reporting mechanisms from the local or State-level reporting centers to the Federal (CDC) level. EPA believes that these indicators hold significant promise for more accurately quantifying and demonstrating the benefits of Federal and state risk reduction environmental controls. EPA proposes to explore the feasibility of

these different indicators in moving towards a more quantifiable health-based outcome measure.

Sub-Objective 1.2: Fish Safe to Eat. By 2008, water quality will be improved to allow increased consumption of safe fish in not less than 3% of the water miles/acres identified by States as having a fish consumption advisory in 2002. (2002 Baseline = 0% of the 485,205 river miles and 11,277,276 lake acres identified by States in 2002 as having fish with chemical contamination levels resulting in an advisory of a potential human health risk from consumption.)

Strategic Target:

- Reduce Shellfish Contamination: By 2008, xx% of the shellfish growing acres monitored by States that are approved for use. (2002 Baseline: __ % shellfishing acres open [expected to be reported in 2003]; 1995 Baseline: 77% approved for use of 21.6 million acres monitored; 69% approved and 8% conditionally approved. [Note: Acres monitored is expected to increase by about 2 million acres from 2002-2008]).

Sub-Objective 1.3: Water Safe for Swimming. By 2008, restore water quality to allow swimming in not less than 10% of the stream miles and lake acres identified by States in 2002 as having water quality unsafe for swimming. (2000 Baseline = 0% of water of the approximately 90,000 stream miles and 2.6 million lake acres reported by States as not meeting a primary contact recreational use in the 2000 reports under section 305(b) of the Clean Water Act {baseline to be updated to 2002 data in early 03}.)

Strategic Targets:

- Reduce Disease Outbreaks Attributable to Recreational Waters: By 2008, the quality of recreational waters nationwide will be protected so that the number of waterborne disease outbreaks attributable to swimming in, or other recreational contact with, waters of the ocean, rivers, lakes, or streams will be reduced to an average of xx, measured as a five year average. (2002 Baseline: an average of 9 recreational contact waterborne disease outbreaks reported per year by the Centers for Disease Control over the years 1994 - 1998; adjusted by the Heinz Center to remove outbreaks associated with waters other than natural surface (e.g., removed outbreaks associate with pools, water parks, etc.).)

- Reduce Beach Closures and Advisories: By 2008, coastal and Great Lakes beaches monitored by State beach safety programs will be open and safe for swimming in over 96% of the days of the beach season. (2002 Baseline: monitored beaches open 94% of the days of the beach season.)

Objective 2: Protect Water Quality. Protect the quality of rivers, lakes and streams on a watershed basis and protect coastal and ocean waters, including attaining, by 2008, the specific environmental targets identified in sub-objectives and measured by strategic performance measures described below.

Sub-Objective 2.1: Protect and Improve Water Quality on a Watershed Basis. By 2008, use both pollution prevention and restoration approaches, so that, in 600 of the

Nation's watersheds, water quality standards are met in at least 80% of the assessed water segments (2002 baseline: 510 watersheds of the total 2,262 USGS cataloguing unit scale watersheds across the Nation); and in 200 watersheds, all assessed water segments maintain their quality and at least 20% of assessed water segments show improvement above conditions as of 2002 (2002 baseline: 0 USGS cataloguing unit scale watersheds).

NOTE: EPA is interested in hearing comments concerning the most appropriate way to "show improvement" (e.g., number of parameters, degree of improvement or net change, measurement in chemical or biological parameters). EPA is also interested in hearing comments concerning the feasibility of assessing changes in the condition of all watersheds in the country and the appropriateness of such an assessment.

Strategic Targets:

- Restore Water Quality: By 2008, reduce pollution from all types of sources as needed to restore polluted waters so that water quality standards are fully attained in over xx% of those water bodies/segments identified in 2000 as not attaining standards. (2000 Baseline: 0% of the 22,000 individual water bodies identified on 1998/2000 lists of impaired waters developed by States and approved by EPA under section 303(d) of the Clean Water Act.)

  NOTE: EPA is interested in hearing comments on establishing appropriate target. Baseline of 2000 rather than 2002 to be comparable with Draft Strategic Plan by the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA). ASIWPCA target is restoration of 25% of waters identified as impaired in 2000 by 2012.

- Reduce Nutrient Levels in Rivers: By 2008, implement pollution reduction programs as needed to reduce levels of phosphorus contamination in rivers and streams so that phosphorus levels are below levels of concern established by USGS or levels adopted by a State in a water quality standard in:

  – xx% of test sites for major rivers;
  – xx% of test sites for urban streams; and
  – xx% of test sites for farmland streams.

  (Baseline: test sites measured by USGS and/or other data sources between 1992/1998 as:

  – 50% of test sites for major rivers are below USGS levels of concern;
  – 33% of test sites for urban streams are below USGS levels of concern;
  – 25% of test sites for farm streams are below USGS levels of concern.

- Reduce Sediment and Nutrient Loadings: By 2008, implement pollution reduction measures so that sediment loadings and nitrogen and phosphorus concentrations are reduced. (2002 Baseline: to be determined.)

  NOTE: EPA is interested in hearing public comment on the availability of

data to support the development of a baseline and measure addressing sediment loadings and nitrogen and phosphorus concentrations in a diverse group of waterbodies (e.g., rivers, streams, and lakes).

- Improve Tribal Waters: By 2008, water quality in Indian Country will be improved for key parameters measured at xx% of monitoring stations for which baseline data is available. (2002 Baseline: water quality parameters at 900 sampling stations related to 87 Tribal areas monitored with results in STORET database).

  NOTE: EPA is interested in hearing comment on additional approaches to monitoring water quality in Indian Country, including use of NWIS, NQWA, or AIEO Baseline Data Project databases.

- Improve Access to Basic Sanitation: By 2008, increase the number of people in the United States with access to basic sanitation. (2002 Baseline: Estimate of people lacking access to basic sanitation to be developed in cooperation with State/Tribes/Other Federal Agencies.)

  NOTE: EPA is interested in hearing public comment on the how best to define "access to basic sanitation" and potential data sources to support this measure.

- Reduce the Introduction of Aquatic Invasive Species:

  NOTE: EPA is not providing an outcome measure at this time. EPA is interested in hearing public comment on the value of a measure related to controlling the introduction of aquatic invasive species and on the availability of data to support such a measure.

Sub-Objective 2.2: Improve Coastal and Ocean Waters. By 2008, prevent water pollution and protect aquatic systems so that overall aquatic system health of coastal waters nationally, and in each coastal region, is improved on the "good/fair/poor" scale of the National Coastal Condition Report by at least .2 points. (2002 Baseline: National rating of "fair/poor" or 2.4 where the rating is based on a 5-point system where 1 is poor and 5 is good and is expressed as an aerially weighted mean of regional scores using the National Coastal Condition Report indicators (i.e. water clarity, dissolved oxygen, coastal wetlands loss, eutrophic conditions, sediment contamination, benthic health, and fish tissue contamination).)

Strategic Targets:

- Maintain Coastal Water Clarity: By 2008, maintain water clarity in coastal waters on the "good/fair/poor" scale of the National Coastal Condition Report. (2002 Baseline: National rating of "good" or 4.3 where the rating is based on a 5 point system where 1 is poor and 5 is good and is expressed as an areally weighted mean of regional scores.)

- Maintain Coastal Dissolved Oxygen: By 2008, maintain dissolved oxygen levels in coastal waters on the "good/fair/poor" scale of the National Coastal Condition Report. (2002 Baseline: National rating of "good" or 4.5 where the rating is based on a 5 point system where 1 is poor and 5 is good and is expressed as an areally weighted mean of regional scores.)

- Reduce Coastal Wetlands Loss: By 2008, reduce coastal wetlands loss on the "good/fair/poor" scale of the National Coastal Condition Report by at least xx points. (2002 Baseline: National rating of "poor" or 1.4 where the rating is based on a 5 point system where 1 is poor and 5 is good and is expressed as an areally weighted mean of regional scores.)

- Reduce Coastal Sediment Contamination: By 2008, reduce contamination of sediments in coastal waters on the "good/fair/poor" scale of the National Coastal Condition Report by at least xx points. (2002 Baseline: National rating of "poor" or 1.3 where the rating is based on a 5 point system where 1 is poor and 5 is good and is expressed as an areally weighted mean of regional scores.)

- Improve Coastal Benthic Quality: By 2008, improve benthic quality in coastal waters on the "good/fair/poor" scale of the National Coastal Condition Report by at least xx points. (2002 Baseline: National rating of "poor" or 1.4 where the rating is based on a 5 point system where 1 is poor and 5 is good and is expressed as an areally weighted mean of regional scores.)

- Reduce Coastal Fish Tissue Contamination: By 2008, reduce contaminant levels in tissue of fish in coastal waters on the "good/fair/poor" scale of the National Coastal Condition Report by at least xx points. (2002 Baseline: National rating of "poor" or 1.9 where the rating is based on a 5 point system where 1 is poor and 5 is good and is expressed as an areally weighted mean of regional scores.)

- Maintain Eutrophic Condition in Coastal Waters: By 2008, maintain eutrophic condition in coastal waters on the "good/fair/poor" scale of the National Coastal Condition Report. (2002 Baseline: National rating of "poor" or 1.7 where the rating is based on a 5 point system where 1 is poor and 5 is good and is expressed as an areally weighted mean of regional scores.)

Objective 3: Science and Research. Through 2010, provide and apply a sound scientific foundation to EPA's goal of clean and safe water by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 2.

Sub-Objective 3.1: Research. Through 2010, conduct leading-edge, sound scientific research to support the protection of human health through the reduction of human exposure to contaminants in drinking water, in fish and shellfish, and in recreational waters and to support the protection of aquatic ecosystems, specifically, the quality of rivers, lakes and streams and coastal and ocean waters.

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Strategic Targets:

- By 2010, develop scientifically sound data and approaches to assess and manage risks to human health posed by exposure to regulated waterborne pathogens and chemicals, including those covered by the M/DBP, arsenic and six-year review rules.
- By 2007, develop scientifically sound data and approaches to assess and manage risks to human health posed by exposure to specific unregulated waterborne pathogens and chemicals on the Contaminant Candidate List #2.
- By 2010, develop innovative tools and provide new data to support the development of Contaminant Candidate List #3 and to improve decision-making on other regulatory issues.
- By 2009, provide data, tools and technologies to support management decisions by EPA, State, and local authorities to protect source waters and the quality of water in the distribution system.
- Provide the approaches and methods to develop and apply criteria to support designated uses.
- Provide the tools to assess and diagnose impairment in aquatic systems and the sources of the associated stressors.
- Provide the tools to restore and protect aquatic systems and to forecast the ecological, economic, and human health outcomes of alternative solutions.

Sub-Objective 3.2: Science. By 2008, apply the best available science (i.e., tools, technologies and scientific information) to support Agency regulations and decision making for current and future environmental and human health hazards related to reducing exposure to contaminants in drinking water, fish and shellfish, and recreational waters and the protection of aquatic ecosystems.

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Goal 3: Preserve and Restore the Land.

Preserve and restore the land by reducing and controlling risks posed by releases of harmful substances; promoting waste diversion, recycling, and innovative waste management practices; and cleaning up contaminated properties to levels appropriate for their beneficial reuse.

Objective 1: Preparedness and Response. By 2008, reduce and control the risks posed by accidental and intentional releases of harmful substances by improving our nation's capability to prevent and respond more effectively to these emergencies.

> **Sub-Objective 1.1:** By 2008, improve the Agency's emergency preparedness capability by achieving and maintaining the capability to respond to five simultaneous large-scale emergencies, and increasing response readiness by XX% (from a baseline established in 2003). Also, facilitate rapid and effective emergency response across the Agency and all levels of government by improving coordination and communication.
>
> **Sub-Objective 1.2:** By 2008, respond to XXX releases of hazardous substances and XXX oil spills. (Note: subsequent versions of this strategic plan should include a measure for effectiveness of response.)
>
> **Sub-Objective 1.3:** By 2008, reduce releases to the environment from oil facilities by increasing the number of those facilities in compliance from XXX to 6,000.

Objective 2: Prevention & Conservation. By 2008, reduce adverse effects on land by reducing waste generation, increasing waste recycling, and ensuring proper management of waste and petroleum products at facilities in ways that prevent dangerous releases.

> **Sub-Objective 2.1:** By 2008, reduce adverse effects of harmful substances on land by reducing the national average municipal solid waste generation from XX to YY pounds per person per day and increasing the municipal solid waste recycling to at least X% from Y%. Also, increase the recycling of hazardous substance in the XXX sectors from XX% to YY%.
>
> **Sub-Objective 2.2:** By 2008, reduce releases to the environment from underground storage tanks (USTs) by increasing the percentage of UST facilities that are in significant operational compliance from XX to YY, and by decreasing the number of confirmed releases reported annually.
>
> **Sub-Objective 2.3:** By 2008, prevent dangerous releases to the environment from RCRA hazardous waste management facilities by increasing the percentage of those facilities that have approved controls in place from X to Y.

Objective 3: By 2008, control the risks to human health and the environment at contaminated properties or sites, and make land available for reuse.

> **Sub-Objective 3.1:** By 2008, risks to human health and the environment at contaminated sites will be controlled through cleanup, assessment, stabilization, or other action.

Sub-Objective 3.2: Through 2008, X units of land will be made available for reuse through cleanup, assessment, stabilization, or other action which indicates that such lands are restored to levels that are protective for the next reasonably anticipated future land use. (Note: This sub-objective does not call for additional state reporting.)
(Total amount of land measured to be comprised of X units from RCRA, X acres from Superfund, and X units from Underground Storage Tank facilities.)

Objective 4: Science/Research. Through 2010, provide and apply a sound scientific foundation to EPA's goal of preserving and restoring the land by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 3.

Sub-Objective 4.1: Science to Support Land Goal. Through 2008, provide the most current, sound scientific infrastructure that will provide a foundation for preservation of land quality and remediation of contaminated land.

Sub-Objective 4.2: Research. Through 2010, conduct leading-edge, sound scientific research to provide a foundation for preservation of land quality and remediation of contaminated land. Research will result in documented methods, models, assessments, and risk management options for Program and Regional Offices, facilitating their accurate evaluation of effects on human health and the environment, understanding of exposure pathways, and implementation of effective risk management options.

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Goal 4: Healthy Communities and Ecosystems.

Protect, sustain or restore the health of people, communities, and ecosystems using integrated and comprehensive approaches and partnerships.

Objective 1: Prevent and reduce chemical, organism and pesticide risks to humans, communities and ecosystems.

Sub-Objective 1.1: Through 2008, protect human health, communities and ecosystems from pesticide use by reducing exposure to the more toxic pesticides.

Strategic Targets:

- Through 2008, ensure pesticides in the marketplace remain safe by systematically reviewing them.
- Through 2008, strengthen pesticides worker protection and certification & training [TBD]
- Through 2008, protect endangered species [TBD]
- Reduce by XX percent from 1995 levels the number of incidents involving mortalities to terrestrial and aquatic wildlife caused by pesticides.
- By 2008, complete an assessment of pesticide residues in subsistence/lifeway foods and non-foods such as essential cultural materials.
- Occurrence of residues of carcinogenic and cholinesterase inhibiting neurotoxic pesticides on foods eaten by children will have decreased by XX percent (cumulative) from their average 1994 to 1996 levels.
- At least XX percent of acre treatments will use applications of reduced risk chemicals.

Sub-Objective 1.2: Through 2008, protect human health, communities and ecosystems from pests (affecting health, economy and food) through availability of pesticides meeting new health safety standards.

Strategic Target:

- Through 2008, ensure new pesticide registration actions (including new active ingredients, new uses) meet new health standards and are environmentally safe.

Sub-Objective 1.3: Through 2008, protect human health, communities, and ecosystems from chemical risks and releases through facility risk reduction efforts and building community infrastructures.

Strategic Targets:

- By 2008, XX% of those facilities with hazardous chemicals, including RMP facilities, will have reduced their risk of having a major chemical accident.
- By 2008, XX% of local communities (or LEPC) will have incorporated facility risk information into their emergency preparedness and community right-to-know programs.

Sub-Objective 1.4: Through 2008, prevent and reduce chemical and organism risks to humans, communities and ecosystems.

Strategic Targets:

- Through 2008, make publicly available basic screening level information on endocrine disruption potential for at least 50 HPV chemicals.
- Through 2008, obtain, review for adequacy, and make public Screening Information Data Set (SIDS) values for chemicals identified through the TSCA Inventory Update Rule as being produced or imported in quantities of one million pounds or more in 1990, 1994, or 1998 (High Production Volume (HPV) chemicals).
- Through 2008, obtain two cycles of TSCA Inventory Update Rule reporting data, including additional exposure-related data authorized under the TSCA Inventory Update Rule Amendments.
- Through 2008, based upon initial screening of SIDS data obtained for HPV chemicals (identified through the TSCA Inventory Update Rule as being produced or imported in quantities of one million pounds or more in 1990, 1994, or 1998 (High Production Volume chemicals), obtain additional risk screening and assessment data for those chemicals or chemical categories presenting the highest priority for additional risk screening or assessment. [TBD]
- Through 2008, complete risk assessments for [TBD] chemicals to which children and other sensitive populations such as tribal communities and Alaska Native villages may be disproportionately exposed.
- Through 2008, develop and improve Structure-Activity Relationship tools for use in screening new chemicals for potential risks to humans, communities and ecosystems. [TBD]
- Through 2008, develop Action Plans for [TBD] Persistent Bioaccumulative Toxic (PBT) Chemicals.
- By 2006, create a comprehensive guidance document to assist tribes in addressing priority issues affecting their traditional lifeways and subsistence

concerns and pilot recommendations with XX tribes or Alaska Native Villages.

- Through 2008, reduce the incidence of childhood lead poisoning from 1999/2000 levels to XXX,XXX cases.
- Through 2006, continue efforts to support the tribal set-aside grant program for implementation of blood level screening and lead awareness activities in Indian Country.
- Through 2008, ensure prevent the entry into US commerce of chemicals that pose unreasonable risks to human health or the environment.
- Reduce by XX percent (cumulative) hazard-based score for chronic human health calculated for releases and transfers of toxic chemicals reported to TRI from the level calculated for the preceding year, after adjusting for changes in production indices for the manufacturing, mining, and utilities sector.
- Through 2008, reduce risks to human health and the environment associated with chemicals in commerce by X% from 2000 levels as measured by EPA's Risk Screening Environmental Indicators model.
- EPA is developing additional results-oriented strategic measures and seeks suggestions from stakeholders, including federally recognized tribes and Alaska Native Villages, to assess our progress in reducing risks from new and existing chemicals generally and reducing risks specifically associated with dioxin, asbestos, PCBs, mercury, and other priority chemicals.

Objective 2: Reduce risks to human health through brownfields assessment and cleanup, leverage non-economic and economic reuse of properties, and sustain and restore the health of communities and local ecological systems that contribute to community health.

Sub-Objective 2.1: Sustain community health, and preserve local ecological systems that support healthy human communities.

Strategic Targets:

- By 2008, [X - number] communities, working with EPA through meaningful public involvement, will adopt and begin implementing comprehensive, integrated planning and environmental management processes to pursue ecologically compatible development, sustain local ecosystem function, and support more livable communities.
- By 2008, [X - number] communities or regions will adopt environmental practices that reduce cumulative negative impacts on critical ecosystem services.

Sub-Objective 2.2: Restore the health of sensitive communities and populations that suffer from disproportionate and cumulative environmental impacts.

Strategic Target:

- By 2008, in countries in which EPA is working to phase out the use of leaded gasoline, exposure of children to lead from gasoline will be reduced by [X%].

Sub-Objective 2.3: Facilitate the restoration and redevelopment of brownfield properties.

Strategic Target:

- Through 2008, EPA will report the number of brownfield properties assessed and cleaned up. Returning these lands to beneficial reuse will leave or generate $XX and create XX jobs through revitalization efforts.

Sub-Objective 2.4: In the US-Mexico Border Region, sustain and restore community health, and preserve local ecological systems that support healthy human communities.

Strategic Targets:

- By 2012, assess significant shared and transboundary surface waters and achieve a majority of water quality standards currently being exceeded in those waters. [Baseline: segments in both Mexico and US with significant transboundary and shared waters.] EPA Note: This measure is still a work in progress which will involve many stakeholders.

- By 2005, increase by 1.5 million the number of people connected to potable water and wastewater collection and treatment systems.

- By 2007, reduce by X the number of people exposed to harmful levels of pesticides.

- By 2008, have in place joint contingency plans for all 14 sister cities.

Objective 3: Protect, sustain, and restore the health of natural habitats and ecosystems.

Sub-Objective 3.1: Facilitate the ecosystem scale protection and restoration natural areas.

Strategic Targets:

- By 2010 there will be no net loss of undeveloped areas.

- By 2010 baseline native biodiversity will be increased by 2% within ecoregions.

- By 2008 each region will have implemented, in partnership with other federal agencies, an emergency response invasive species team to provide immediate response to control newly identified invasive species of concern.

- By 2008, improve the overall aquatic system health of the 28 estuaries that are part of the National Estuary Program (NEP), as measured using the

National Coastal Condition Report indicators (i.e. water clarity, DO, coastal wetlands loss, eutrophic conditions, sediment contamination, benthic health, and fish tissue contamination). (Baseline: By 2005, a baseline report on the condition of the NEPs, using the same indicators as the National Coastal Condition Report will be released. This report will establish a uniform set of quantifiable indicators.)

- By 2008, protect or restore additional acres of habitat within the study areas for the 28 estuaries that are part of the National Estuary Program (NEP). (2002 Baseline: 0 acres of habitat restored starting at this date and looking forward.)

- By 2010, EPA, working with its partners, will reach consensus on scientifically valid indicators for 1) fragmentation 2) biodiversity 3) natural productivity and 4) invasive species for ecosystems and will apply those indicators to characterize the state of the environment of the United States.

- Through 2010, every EPA program and region has routine access to, and regularly uses, geospatial data and decision support tools on ecoregions, ecosystems, and critical ecological features in their decisions and actions.

- By 2010 there will be no net loss of natural productivity within ecoregions.

- By 2010, X percent (or number) of actions and decisions by an EPA program will result in selection of alternatives that will protect or restore Y more acres of native ecosystems than other alternatives under consideration.

- By 2010, X percent (or number) of actions and decisions by an EPA program will result in selection of alternatives that protected biodiversity that would have been lost through other alternatives under consideration.

- By 2010, no more than X percent of a region's characteristic ecosystems are evaluated as highly vulnerable to degradation or loss.

Sub-Objective 3.2: By 2008, working with partners, achieve a net increase of 400,000 acres of wetlands. (2002 Baseline: annual net loss of an estimated 58,500 acres)

Strategic Target:

[Note: The Agency is interested in hearing views and comments on a measure addressing the environmental outcomes associated with change in the function and value of wetlands and the best use of data to support such a measure.]

Sub-Objective 3.3: By 2008, prevent water pollution and protect aquatic systems so that overall aquatic system health of coastal waters of the Great Lakes is improved on the "good/fair/poor" scale of the National Coastal Condition Report. (2002 Baseline: Great Lakes rating of fair/poor or 2.2 where the rating is based on a 5-point system where 1 is poor and 5 is good and is expressed as an areally weighted mean of regional scores using the National Coastal Condition Report indicators (i.e. water clarity, DO, coastal wetlands loss, eutrophic conditions, sediment contamination, benthic health, and fish tissue contamination).

Sub-Objective 3.4: By 2008, prevent water pollution and protect aquatic systems so that overall aquatic system health of the Chesapeake Bay is improved enough so that there are 120,000 acres of submerged aquatic vegetation (2002 baseline, 85,252 acres).

Sub-Objective 3.5: By 2008, prevent water pollution and protect aquatic systems so that overall aquatic system health of coastal waters of the Gulf of Mexico is improved by 0.2 on the "good/fair/poor" scale of the National Coastal Condition Report. (2002 Baseline: Southeast rating of fair/poor or 1.9 where the rating is based on a 5-point system where 1 is poor and 5 is good and is expressed as an arial weighted mean of regional scores using the National Coastal Condition Report indicators (i.e. water clarity, DO, coastal wetlands loss, eutrophic conditions, sediment contamination, benthic health, and fish tissue contamination).

Strategic Target:

- By 2008, reduce releases of nutrients throughout the Mississippi River Basin as needed to reduce the size of the hypoxic zone in the Gulf of Mexico, as measured by the five year running average of the size of the zone. (Baseline: 1996-2000 running average size = 14,128 km2)

Objective 4: Through 2010, provide and apply a sound scientific foundation to EPA's goal of healthy people, communities, and ecosystems by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 4.

Sub-Objective 4.1: Through 2012, conduct research that contributes to the overall health of humans, their communities, and ecosystems. Research will provide a foundation for protecting, sustaining, or restoring human and ecological health. Research will focus on pesticides and toxics, global climate change, cross-cutting research on the health of humans, their communities, and ecosystems.

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Strategic Targets:

(Pesticides and Toxics)

- The Safe Food Multi-Year plan supports research to reduce scientific uncertainty conducted under the Food Quality Protection Act (FQPA). By 2008, ORD will provide scientific tools to OPP/OPPTS that can be used to characterize, assess, and manage risks across the exposure-to-dose-to-effects continuum in implementing the FQPA requirements.

- Provide EPA with predictive tools for prioritization of testing requirements and enhanced interpretation of exposure, hazard identification and dose-response information.

- Create the scientific foundation for probabilistic risk assessment methods to protect natural populations of birds, fish and other wildlife.

- Provide OPPTS with the scientific underpinnings for guidance to prevent or reduce risks of human environments within communities, homes, workplaces.

- Provide OPPTS with strategic scientific information and advice concerning novel or newly discovered hazards.

(Global climate change research)

- Determine the regional and national implications of climate change and variability for the people, the environment, and the economy of the United States in the context of other, non-climate (environmental, economic, and social) stresses.

- Build the capacity to assess and respond to global change impacts on fresh water and coastal ecosystems.

- Determine the possible impacts of global change on water quantity and quality and the consequences for aquatic ecosystems and drinking water and wastewater systems.

- Build capacity to assess and respond to global change impacts on human health in the US.

(Core Research Program: Ecological Assessment)

- The states and tribes assess the condition of all their waters in a scientifically defensible and representative fashion that allows aggregation and assessment of trends at multiple scales.

- Federal, state and local managers can diagnose cause and forecast future condition in a scientifically defensible fashion to more effectively protect and restore valued ecosystems.

- Federal, state and local managers can protect and restore aquatic ecosystems using scientifically defensible methods.

- Federal, State and local managers can conduct scientifically defensible assessments of current and future condition, causes of impairments, and management alternatives.

(Core Research Program: Human Health)

- By 2008, develop models, modeling frameworks, and Guidance Documents to assess aggregate (via multiple pathways) exposures and risks to pollutants that pose the greatest health risks to the American public.

- By 2012, expand the models, modeling frameworks and Guidance Documents produced in 2008 to include cumulative exposures and risks (including multiple chemicals and mixtures) across the whole of the risk paradigm, from Source-to-Dose-to-Effects to support EPA guidelines in cumulative risk assessment.

- By 2009, improve the scientific foundation of human health risk assessment and risk management for susceptible subpopulations.

- By 2008, provide the scientific understanding and tools to assist the Agency and others in evaluating the effectiveness of public health outcomes resulting from risk management actions.

- Develop a commonly accepted approach for estimating the risk to human health posed by exposure to toxic chemicals in the environment that incorporates information on biological mechanisms governing their toxicity.

(Endocrine Disruptors)

- Provide a better understanding of the science underlying the effects, exposure, assessment, and management of endocrine disruptors.

- Determine the extent of the impact of endocrine disruptors on humans, wildlife, and the environment.

- Support EPA's screening and testing program.

(Mercury)

- Reduce and prevent the release of mercury in the environment.

- Understand the transport and fate of mercury from release to the receptor, and its effects on the receptor.

(PBTs)

- Reduce risks to human health and the environment from current and future exposure to PBT Pollutants. A Multimedia Strategy for Addressing Priority PBT Pollutants is being developed by the Multimedia and Pollution Prevention (M2P2) Forum.

(Computational Toxicology)

- Utilize genomics approaches to provide data for the computational modeling of toxicological pathways for single chemicals or classes of chemicals.

- Enhance the scientific basis and diagnostic/predictive capabilities of existing and proposed chemical testing programs by using in vitro or alternative approaches such as molecular profiling, bioinformatics, and quantitative structure activity relationships.

- Determine the genes responsible for specific mechanisms of toxicity, diagnose patterns of genes associated with known mechanisms of toxicity, and characterize and model chemical structures associated with known mechanisms of toxicity.

Sub-Objective 4.2: Identify and synthesize the best available science (i.e., tools, technologies and scientific information) to inform Agency regulations and decision making for current and future environmental and human health hazards related to the health of people, communities, and ecosystems.

Strategic Targets:

- By 2008, the EPA program offices, Office of Research and Development, and Regions will reach consensus on scientifically valid indicators for the health of communities, and local ecosystem function.

- By 2006, develop new analytical tools that enable all stakeholders and state and tribal partners to query data for their own specific purposes; provide access to new types of environmental or health data that are relevant to localities; facilitate the public's ability to access and use Agency, state, and other data; and increase by 10 percent, compared to 2000, the number of communities with real-time, geographically- based environmental information.

- Through 2008, obtain and make public annual Toxics Release Inventory (TRI) reporting data.

Objective 5: Enhance the Nation's capability to prevent, detect, protect, and recover from acts of terror.

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Sub-Objective 5.1: Conduct leading-edge research to develop enhanced methods for detection, containment, and decontamination of biological and chemical agents intentionally introduced into buildings and drinking water systems, and methods for safe disposal of waste materials resulting from cleanups. Develop methods for conducting rapid assessments of risks to emergency response personnel and the public from potential homeland security threats.

Strategic Targets:

- By 20XX, provide scientific tools to conduct monitoring of indoor air and drinking water facilities that have been intentionally contaminated with biological or chemical agents.
- By 20XX, develop methods for detection, containment, and decontamination of drinking water facilities and indoor environments contaminated with chemical or biological agents.
- By 20XX, improve risk assessment capabilities for emergency response personnel to use to assess the extent of contamination of indoor environments, drinking water facilities and surrounding communities.
- By 20XX, conduct testing and verification of detection methods and decontamination technologies that can be used by emergency response personnel.

Sub-Objective 5.2: By 2008, protect public health and communities by enhancing the security of chemical and oil facilities.

Strategic Targets:

- Industry will conduct XX vulnerability assessment of chemical facilities.
- Industry will implement security measures to reduce vulnerabilities within their facility and protect communities and environment from chemical releases.

Sub-Objective 5.3: Through 2008, improve the Agency's ability to collaborate on the prevention, detection, and response to incidents by enhancing consistency in data collection and facilitating data-sharing.

Strategic Targets:

- By 2005, data holdings will be more easily accessed or retrieved for secondary uses within the Agency.
- By 2005, the regulated community will have the capability to review and report errors in the Agency's data systems.

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Sub-Objective 5.4: Through 2008, safeguard public health and safety by supporting improvements in security for those parts of the Nation's infrastructure that are under EPA's purview.

Strategic Targets:

- EPA will provide support to drinking water and wastewater utilities, the chemical industry, and those parties responsible for indoor air.
- Through 2008, develop Acute Exposure Guideline Limit values for xx chemicals and organisms.
- Homeland Security Chemical Security [TBD]
- EPA will undertake steps to safeguard its staff and protect the operational capability of its vital information infrastructure and other physical assets.

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Goal 5: Compliance and Environmental Stewardship.

Improve environmental performance through compliance with environmental requirements, preventing pollution, and promoting environmental stewardship. Protect human health and the environment by encouraging innovation, and providing incentives for governments, businesses, and the public that promote environmental stewardship.

Objective 1: By 2008, maximize compliance to protect human health and the environment by achieving an X% increase in the pounds of pollution reduced through compliance assistance, compliance incentives, and enforcement; and achieving an X% increase in the number of regulated entities making improvements in environmental management practices.

Sub-Objective 1.1: By 2008, prevent noncompliance or reduce environmental risks by achieving: an X% increase in the percentage of regulated entities that improved their understanding of environmental requirements as a result of EPA assistance; an X% increase in the number of regulated entities that improved environmental management practices as a result of EPA assistance; and an X% increase in the percentage of regulated entities that reduced pollution as a result of EPA compliance assistance.

Strategic Targets:

- Percentage of regulated entities seeking assistance from EPA-sponsored compliance assistance centers reporting that they increased their understanding of environmental requirements as a result of their use of the centers or the clearinghouse.
- Percentage of regulated entities seeking assistance from EPA-sponsored compliance assistance centers reporting that they improved environmental management practices as a result of their use of the centers or the clearinghouse.
- Percentage of regulated entities seeking assistance from EPA-sponsored compliance assistance centers reporting that they reduced pollution as a result of their use of the centers or the clearinghouse.
- Percentage of regulated entities receiving direct compliance assistance (e.g., training, on-site visits, etc) from EPA reporting that they increased their understanding of environmental requirements as a result of EPA assistance.
- Percentage of regulated entities receiving direct compliance assistance (e.g, training, on-site visits, etc.) from EPA reporting that they improved environmental management practices as a result of EPA assistance.
- Percentage of regulated entities receiving direct assistance (e.g., training, on-site visits, etc.) from EPA reporting that they reduced pollution as a result of EPA assistance.

Sub-Objective 1.2: By 2008, identify and correct noncompliance and reduce

environmental risks through an X% increase in the percentage of facilities that use EPA incentive policies to conduct environmental audits or other actions that reduce pollution or improve environmental management practices.

Strategic Targets:

- Percentage of audits or other actions that result in pollution reduction
- Percentage of audits or other actions that result in improvements in environmental management practices
- Pounds of pollutants reduced as a result of audit agreements
- Dollars invested in improving environmental management practices as a result of audit agreements

Sub-Objective 1.3: By 2008, identify, correct, and deter noncompliance and reduce environmental risks through monitoring and enforcement by achieving: an X% increase in the number of complying actions taken during inspections; an X% increase in the percentage of enforcement actions requiring pollution reductions; and an X% increase in the percentage of enforcement actions requiring improvement of environmental management practices.

Strategic Targets:

- Percentage of regulated entities taking complying actions, as a result of compliance monitoring
- Percentage of concluded enforcement cases (including SEPs) requiring pollution reductions
- Percentage of concluded enforcement cases (including SEPs) requiring implementation of improved environmental management practices (perhaps broken out by changes in use or handling of pollutants, and changes in other management practices)
- Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions.
- Number of dollars invested in improved environmental performance or improved environmental management practices through concluded enforcement actions (i.e., injunctive relief and Supplemental Environmental Projects).
- Number of inspections, civil investigations, and criminal investigations conducted in areas that: pose risks to human health or the environment, display patterns of non-compliance, or include disproportionately exposed populations.

- Percentage of RCRA, CWA/NPDES or CAA stationary sources that were determined previously to be in significant non-compliance, that returned and stayed in compliance for the following two years.

Objective 2: By 2008, prevent X lbs. of pollution, increase resource efficiency and reduce human and environmental risks associated with operations, activities and products of governments, businesses and the general public.

Sub-Objective 2.1: By 2008, improve the environmental stewardship performance of government at all levels [by X % in the TBD index], providing models for protecting human health and the environment.

Strategic Targets:

- By 2008, Government Environmental Performance Index (green products purchased, electricity saved, water saved) improved by X % (index to be developed)
- By 2008, reduce by X % generation of TRI reported non-recycled wastes at Federal Facilities from 19__ levels.
- By 2008, reduce by X % release of TRI reported air pollutants at Federal Facilities from 19__ levels.

Sub-Objective 2.2: By 2008, improve the environmental stewardship performance of businesses [by Y% in the TBD index] through the adoption of more efficient and sustainable business practices, materials and technologies that are more protective of human health and the environment.

Strategic Targets:

- By 2008, improve Business Environmental Index (wastes produced, releases, stewardship, recycling, etc.) (To be developed)
- By 2008, reduce by X % TRI business-reported wastes from 19__ levels.
- By 2008, reduce by X% chemicals reported by business to TRI as released to the environment, from 19__ levels.
- By 2008, reduce X million lbs of hazardous waste generated by businesses, from 19__ levels.
- By 2008, reduce waste minimization priority list chemicals in hazardous waste streams reported by businesses to TRI by X% from year _ _ _ _ levels.
- By 2008, conserve X million kwh of electricity used by businesses from 19xx levels.
- By 2008, conserve X million gallons of water used by businesses from 19__ levels.

- By 2008, save business $X through pollution prevention.
- By 2008, X million gallons of water pollution prevented by businesses from 19__ levels.
- By 2008, X million gallons of waste pollution prevented by businesses from 19__ levels.
- By 2008, reduce X tons of air pollutants prevented by businesses from 19__ levels.
- By 2008, reduce X millions of lbs. of hazardous chemicals and xx millions of gallons of hazardous solvents from 19__ levels.
- By 2008, disseminate education and training to 5 % of businesses in targeted sectors.
- By 2008, increase market share of designated cleaner technologies by X % in targeted sectors.

Sub-Objective 2.3: By 2008, improve public environmental stewardship practices by educating and informing Americans about environmental pollution and risks posed to our planet's ecology.

Strategic Target:

- Through 2008, X number of people reached, educated or trained in pollution prevention and other environmental stewardship practices.

Objective 3: Through 2008, improve environmental performance by creating incentives and reducing regulatory barriers for governments, businesses, and communities, to adopt cost-effective, multi-media, and result-based approaches.

Sub-Objective 3.1: Through 2008, achieve measurably improved environmental performance through sector-based approaches, performance-based programs, and assistance to small business.

Strategic Targets:

- Through 2008, Performance Track members who commit to improvements in the following environmental categories will achieve average annual reductions of: X% in water use; X% in energy use; X% in total waste; X% in air releases*; X% in water discharges* [these reductions will be normalized where possible, * these improvements are beyond existing regulatory requirements]

- Through 2008**,** annually provide outreach and technical assistance to 50 state and 3 territorial small business assistance programs to reach at least 750,000 small businesses across the nation.

- Through 2008, work with 8 sectors annually to address barriers to performance improvement, promote their use of Environment Management Systems, and integrate compliance, pollution prevention, and stewardship strategies for each sector.

Sub-Objective 3.2: Through 2008, achieve measurably improved environmental and economic outcomes by testing, evaluating, and applying alternative approaches to environmental protection.

Strategic Targets:

- Through 2008, annually demonstrate and test 5 innovation initiatives.

- Through 2008, annually evaluate 5 innovations to verify their environmental and institutional results.

- Through 2008, annually evaluate 5 innovations to verify their environmental and organizational results.

- Through 2008**,** conduct a review of at least 10 innovative concepts for potential scale-up annually.

- Through 2008, identify at least one system change annually.

- Through 2008, promote significant system changes in at least 3 areas annually.

Sub-Objective 3.3: Through 2008, enhance stewardship by preventing adverse environmental impacts that result from major proposed Federal actions and water treatment facilities actions under the National Environmental Policy Act (NEPA).

Strategic Targets:

- Percent of significant impacts identified by EPA are successfully mitigated.

- Percent of water treatment facility grants and water discharge obligations are met.

- Percent of water treatment facility projects result in no adverse environmental impact.

Objective 4: Through 2008, assist all federally recognized tribes in assessing the condition of their environment, help in building tribes' capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues by increasing the information available for assessing

environmental conditions in and affecting Indian country by eliminating 20% of the data gaps for environmental conditions for major EPA water, land and air programs, and increasing the quality of information available to assess conditions in and affecting Indian country by increasing by 50% the number of tribes with environmental monitoring and assessment activities under EPA approved quality assurance procedures.

Strategic Targets:

- By 2008, increase the use of EPA Tribal Baseline Assessment Project information in setting environmental priorities and informing on policy decisions by developing 15 (cumulative) EPA and interagency cross program software applications.

- By 2008, increase tribes' ability to develop environmental program capacity by providing 100% of the federally recognized tribes with access to general, multi-media capacity building funding as determined by the number of tribes receiving Indian General Assistance Program (GAP) funding.

- By 2008, increase implementation of environmental programs in Indian country to X (cumulative total) as determined by program delegations, approvals or primacies issued to tribes and direct implementation activities by EPA as determined by direct program activity or the number of Direct Implementation Tribal Cooperative Agreements (DITCAs) awarded.

- By 2008, promote holistic program integration by increasing by 50% the number of tribes with multi-media programs reflecting traditional use of natural resources as determined by use of PPGs, integrated TEAs or other agreements.

Objective 5: Through 2010, strengthen the scientific evidence and research supporting environmental policies and decisions on compliance, pollution prevention, and environmental stewardship.

Sub-Objective 5.1: Conduct leading-edge, sound scientific research on pollution prevention, new technology development, socio-economics, and decision making. By 2010, products of this research will be independently recognized as providing critical and key evidence in informing Agency policies and decisions, and solving problems for the Agency and its partners.

Strategic Targets:

(The Office of Research and Development (ORD) is developing long-term goals within the context of multi-year research planning, against which progress under this sub-objective will be measured. These long-term goals may be modified over time as a result of research progress or changing customer needs.)

- Develop new and advanced theories and methods of environmental system analysis, along with decision support tools based on those methods, that can

be applied both within and beyond the industrial sector (e.g., municipal, agriculture, transportation, energy).

- By 2009, complete and document at least 25 studies in areas such as kinetics, catalysis, reaction engineering, materials, interfaces, separations, and thermodynamics, and applied engineering which will enable regulators and the regulated community to determine how these new concepts can be applied to accelerate the introduction of cleaner processes and materials in specific industries, energy production processes, or consumer products in order to achieve reductions in emissions and resource usage.

- Provide appropriate and credible performance information about new, commercial-ready environmental technology, which informs users in the purchase of effective environmental technology in the US and abroad.

- Assemble and deliver to EPA Regions, the Office of Water, and state and local governments a watershed-scale strategy for environmental systems management based on computer tools and a written manual of suggested management practices to reduce risks to human health and the ecology using combined economics, hydrological, physical and ecological, land use, legal, and technological methods.

- Use Small Business Innovation Research (SBIR) incentive funding to develop and commercialize innovative environmental technologies needed by EPA Regions and States and Agency regulatory and compliance programs to protect human health and the environment.

- Develop reliable estimates of how people value environmental and health benefits, with a particular emphasis on children's health issues.

- Identify the motivations that influence the behavioral responses of corporations or other regulated entities to various government interventions, including regulatory enforcement, information dissemination, and voluntary initiatives.

- Identify behavioral responses to market mechanisms and incentives. Support investigations into how programs can be designed to take advantage of predictable behavioral responses to deliver cost effective environmental protection.

- Identify and categorize the environmental behavior and decision making of a variety of different actors, ranging from individuals to community groups, who are affected by pollution or changes in environmental quality.

- Identify the socioeconomic causes and consequences of the potentially most significant long term environmental issues, and identify and develop tools for predicting and addressing these.

Sub-Objective 5.2 : Through 2008, the Agency's National Enforcement Investigations Center (NEIC) will provide sound science and technology in support of civil and criminal enforcement, regulatory development and compliance assistance, and by 2008, the Center will improve the science associated with monitoring, enforcement, and assistance policies and programs.

Strategic Targets:

- By 2008, 100% of environmental measurements (field or laboratory) carried out in support of compliance monitoring, inspections, investigations or compliance assistance are accredited by an internationally recognized, third party organization.
- By 2008, demonstrate improvement of the technical enforceability of the environmental measurement techniques, methods, procedures for all Tier 1 and priority Tier 2 regulatory development efforts (e.g., RCRA reactivity and HWIR, CAA MACT standards, CWA and CAFOs).
- By 2008, develop and implement a prioritized feedback mechanism to periodically assess the regulatory framework, particularly its enforceability effectiveness.
- By 2008, submit for peer reviewed publication, innovative field and laboratory approaches for quantitative and qualitative measurements of environmental harm resulting from hazardous / toxic pollution.
- Number of process based inspections which result in reductions of pollutants.
- Number of inspections, civil investigations and criminal investigations conducted in areas: pose risks to human health or the environment display patterns or noncompliance, or include disproportionately exposed populations.

Objective 6: Ensure that Agency decisions rely on sound economic and policy analysis, consider alternatives, incorporate statutory and executive priorities, and are supported by a well-managed and inclusive development process.

Sub-Objective 6.1: Improve the Agency's regulatory and non-regulatory decisions through the development of sound economic analysis, clear analytic guides, and other economic tools used to estimate environmental costs and benefits.

Strategic Targets:

- Through 2008, annually assist in preparation and review 20 economic analyses to support regulatory development.
- Through 2008, annually conduct and support research on 3 priority economic topics identified in EPA's Economic Research Plan.

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- Through 2008, annually conduct 3 workshops and training courses to improve the development and use of economics at EPA.

- Through 2008, annually facilitate the development of 5 environmental health and ecological indicators in areas identified by the program offices.

Sub-Objective 6.2: Ensure the integrity of the Agency's regulatory decision making process by promoting a range of alternatives for consideration, ensuring that economic and scientific factors are considered, and assuring that relevant Statutory and Executive Order directives are followed.

Strategic Targets:

- Through 2008, annually participate in all Tier 1 and priority Tier 2 regulatory/non-regulatory policy decisions.

- Through 2008, annually review all regulations prior to OMB submission.

- Through 2008, annually conduct 5 policy analysis for key Agency issues.

- Through 2008, annually manage the completion of all Statutory and Executive Orders and train 250 key personnel in the regulatory process.